



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: ANDREW D. HIRZEL

For: VOICE COIL ACTUATOR WITH PROPORTIONAL RESPONSE

Serial No.: 10/048,128

Examiner:

Filed: 01-07

Group Art Unit: 2652

Docket No.: 71364-3

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CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

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Date: April 8, 2002

Andrea Wolters  
(type or print name of person certifying)

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, DC 20231

Sir:

The enclosed references listed on the attached Form PTO-1449 are submitted pursuant to 37 C.F.R. §§ 1.97-1.99 in accordance with Applicant's duty of disclosure as set forth at 37 C.F.R. § 1.56.

This Information Disclosure Statement is submitted within three months of the application filing date.

The submission of the accompanying information is not intended to imply that more pertinent prior disclosures may not exist, nor is it an admission by Applicant that any one or more of the submitted documents form a part of the scope and content of the prior art.

Respectfully submitted,

ANDREW D. HIRZEL

Dated: April 2002

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Form PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

Atty. Docket Number

71364-3

Serial Number:

**LIST OF PRIOR ART CITED BY APPLICANT**  
**IN AN APPLICATION**  
(Use several sheets if necessary)

Applicants: Andrew D. Hirzel

Filing Date:

Group:

**U.S. PATENT DOCUMENTS**

*EXAMINER TRIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	4,518,881	05/1985	Stupak, Jr.			
	AB	5,296,767	03/1994	Asselin			
	AC	521,269	06/1894	Michl			
	AD	4,912,343	03/1990	Stuart			
	AE	5,065,126	11/1991	Suzuki et al.			
	AF	5,099,158	03/1992	Stuart et al.			
	AG	5,187,398	02/1993	Stuart et al.			
	AH	5,341,054	08/1994	Tal et al.			
	AI	5,986,362	11/1999	Sukagawa et al.			
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date	Country	CLASS	SUBCLASS	TRANSLATION YES NO	
	AL						<input type="checkbox"/>	<input type="checkbox"/>
	AM						<input type="checkbox"/>	<input type="checkbox"/>
	AN						<input type="checkbox"/>	<input type="checkbox"/>
	AO						<input type="checkbox"/>	<input type="checkbox"/>
	AP						<input type="checkbox"/>	<input type="checkbox"/>

**OTHER DOCUMENTS**

(Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	Core Products Training Manual by The Arnold Engineering Company. December 1998.
	AS	Solenoids, drives and motors, 2 coil latching solenoid, and New Voice Coil Actuators press release pages from Densitron website (www.densitron.com). January 6, 2000.
	AT	DSI - Servo Electroincs "Higher Bandwidth Actuator HBX3" from website <a href="http://minnie.dsi.nus.edu.sg/tracks/servo/jproject/high/hbx3.html">http://minnie.dsi.nus.edu.sg/tracks/servo/jproject/high/hbx3.html</a> . January 6, 2000.

EXAMINER

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.